Remarks

This Amendment is responsive to the Office Action dated December 15, 2005. Amended claims 1, 3 and 7 and original dependent claims 2 and 4-6 (independent) remain for consideration.

Page 4, at original line 1 has been amended to refer to "sealant material 35-38" thereby conforming to the drawing. Therefore, the rejection to the drawings should be withdrawn.

2. Page 2, line 17 has been amended as required. In the original specification as filed, the word "peripheral" is correctly spelled. Therefore, an amendment cannot be made. However, the examiner is authorized to make any necessary syntactical correction. Therefore, this requirement has been met.

3,4. Claims 1, 3 and 5-8 are rejected as anticipated by Kumata et al (Kumata) as further evidenced by Hahn. Claim 8 has been cancelled.

Claims 1 and 3 have been amended at line 15 to specify that the sealant material contacts the planar surfaces formed by the edges of fuel cells and cooler plates.

Claim 3 has been amended: at lines 12 and 13 to conform to the diverse edges of dependent claim 6; at line 20 to correct a typographical error, and at lines 14 and 15 to properly refer to the antecedent of "planar surfaces" in line 5; at lines 11 and 12 to properly refer to "cooler" antecedents at lines 6 and 7.

All of the remaining amendments made to combination claim 1 are to bring it into conformance with subcombination claim 3, in the manner described hereinbefore.

The sealing material 17' in Kumata Fig. 8 is illustrated in Fig. 9. It does not extend in any fashion or in a manner as required in original claims 1 and 3 as well as amended claims 1 and 3, nor does it form reactant gas manifolds. Instead, it is here suggested that the only relevant embodiment of Kumata is disclosed in Figs. 10-13. Very importantly, the sealant material

(37 in Fig. 11; 41 in Fig. 13) is not on the fuel cell stack, but rather is outboard of a frame 35 (Fig. 10, Fig. 12). Claims 1 and 3 have been amended to refer to "an elastomeric sealant material contacting said one or more planar surfaces....". The invention of providing the sealant directly on the planar surfaces formed by the cells and the cooler plates (as shown in Figs. 2 and 3) eliminates the frame 35 illustrated in Figs. 10 and 12, but still provides the function of sealed coolant inlet and outlet manifolds, as defined in lines 23 and 24 of claim 1 and lines 22 - 24 of claim 3. See MPEP 2144.04 B: **Omission of an Element with Retention of the Element's Function is an Indicia of Unobviousness**. Furthermore, MPEP 2143.01 VI states that "**THE PROPOSED MODIFICATION CANNOT CHANGE THE PRINCIPLE OF OPERATION OF A REFERENCE**", or "require a substantial reconstruction and redesign of the element shown in [the primary reference] as well as a change in the basic principal under which the [primary reference] construction was designed to operate." If this is true for obviousness, it certainly is true for anticipation. In Kumata, a manifold element 20a receives reactant through a pipe 32 and passes it through holes 19. At column 6, lines 50-54, Kumata discloses that simply passing the process air through the holes 19 makes it "difficult to cause the cell reaction uniformly throughout the unit cells in the stack. This problem may be solved by increasing the feeding amount of the process air but it requires use of a blower with larger capacity." Kumata then suggests using "air pipes 45 having a row of air blow holes 46 along its length....to feed the process air uniformly into the processed air channels opened in rows." Thus, Kumata states, first, that a simple process air plenum, such as within the frame 35, requires a blower of larger capacity (which of course comprises more parasitic power consumption, and is something that the present invention overcomes). Furthermore, Kumata says that to solve the problem, one should have pipes (45, Figs. 14 and 15). There is no way that the elastomeric material of Figs. 10-13 can be moved into contact with the

edges of the fuel cells with the pipes 45 in the way. Thus, the invention is a clear improvement over the non-piped embodiment of Kumata, and Kumata does not suggest any modification of the piped embodiment since such a modification would alter the preferred operation suggested by Kumata. Original claims 1 and 7 specify that there be "manifold structure defining between itself and said sealant material (c) a reactant gas inlet manifold or (d) a reactant gas outlet manifold." Clearly, the manifold of Kumata does not define between itself and the sealant material both the coolant manifolds and the reactant manifolds. Therefore, Kumata does not anticipate claim 1 or claim 7 as originally filed or as amended. Claims 5 and 6 are patentable as depending from claim 3 for the reasons set forth in paragraph 3,4 hereinbefore. In addition, claim 5 is patentable for the reasons described hereinbefore with respect to claims 1 and 7, wherein the manifold structure also defines a reactant gas manifold between itself and the sealant material. Claim 7 has been amended to eliminate "adapted to" and positively claim the manifold structure secured to the sealant surface. The reference to antifreeze has been eliminated. The manifold structure of Kumata is not structurally the same as that claimed herein, even in the original claims, as described hereinbefore.

For the reasons set forth hereinbefore, and most particularly for the reasons related to the quotations of the MPEP hereinbefore, reconsideration and allowance of claims 1, 3 and 5-7 is respectfully requested.

5,6. Claims 2 and 4 are rejected as obvious over Kumata in view of Hahn. Claims 2 and 4 are patentable as depending from claims 1 and 3, for the reasons set forth in paragraph 3,4 hereinbefore. Therefore, reconsideration and allowance of claims 2 and 4 over the references is hereby requested.

7. Claims 1, 7 and 8 are rejected as obvious over Kumata in view of Breault et al as further evidenced [sic] by Hahn. Claim 8 has been cancelled. The distinction between Kumata and claims 1 and 7 is set forth

hereinbefore in paragraph 3,4. The reference to antifreeze has been cancelled, causing the referral to Breault et al to be moot. In view of the arguments in paragraph 3,4 hereinbefore, reconsideration of claims 1 and 7 over the references is hereby respectfully requested.

It is believed that the amendments to the claims have been carefully prepared to correct problems with antecedents, combination/subcombination, and dependence of a claim on a parent claim which had a narrower limitation. It is also believed that the foregoing remarks are complete and accurate: specifically, that reference to Fig. 8 of Kumata is inapposite and that the claims define adequately over Figs. 10-15 of Kumata. Should the foregoing not be persuasive, a telephone call is most earnestly solicited.

Respectfully submitted,

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